

Nalco Docket No.: 7673P2  
Customer No. 000049459

**OFFICIAL****CLAIMS**

1. (presently amended) A method of clarifying and dewatering an industrial wastewater in the absence of chemical and enzymatic oxidants comprising sequentially
  - i) adding an effective amount of one or more cellulolytic enzymes to the wastewater;
  - ii) adding an effective amount of one or more flocculants to the wastewater to form a mixture of water and coagulated and flocculated solids; and
  - iii) separating the coagulated and flocculated solids from the water.
2. (original) The method of claim 1 wherein wastewater is an industrial sludge.
3. (original) The method of claim 2 wherein the industrial sludge is an activated sludge.
4. (presently amended) A method of dewatering an autothermal thermophilic aerobic digestion sludge in the absence of chemical or enzymatic oxidants, wherein the sludge comprises thermophilic bacteria and biopolymers produced by said thermophilic bacteria comprising
  - i) adding an effective amount of one or more cellulolytic enzymes to the sludge;
  - ii) adding an effective amount of one or more flocculants to the sludge to form a mixture of water and coagulated and flocculated solids; and
  - iii) separating the coagulated and flocculated solids from the water.
5. (original) The method of claim 1 wherein the cellulolytic enzymes comprise a mixture of endo-1,4- $\beta$ -glucanase, exo-1,4- $\beta$ -glucanase and 1,4- $\beta$ -glucosidase.
6. (original) The method of claim 1 wherein the cellulolytic enzyme is a mono-component enzyme preparation having only endoglucanase activity.
7. (original) The method of claim 6 wherein the mono-component enzyme preparation comprises endo-1,4- $\beta$ -glucanase.

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8. (original) The method of claim 4 wherein the cellulolytic enzyme is a mono-component enzyme preparation having only endoglucanase activity.
9. (original) The method of claim 8 wherein the mono-component enzyme preparation comprises endo-1,4- $\beta$ -glucanase.
10. (original) The method of claim 2 wherein the cellulolytic enzyme is a mono-component enzyme preparation having only endoglucanase activity.
11. (original) The method of claim 10 wherein the mono-component enzyme preparation comprises endo-1,4- $\beta$ -glucanase.
12. (original) The method of claim 1 further comprising adding one or more coagulants to the wastewater.
13. (original) The method of claim 9 further comprising adding one or more coagulants to the wastewater.
14. (presently amended) A method of clarifying and dewatering wastewater in the absence of chemical and enzymatic oxidants comprising sequentially
- i) adding an effective amount of a mono-component enzyme preparation having only endoglucanase activity to the wastewater;
  - ii) adding an effective amount of one or more flocculants to the wastewater to form a mixture of water and coagulated and flocculated solids; and
  - iii) separating the coagulated and flocculated solids from the water.
15. (original) The method of claim 14 wherein the wastewater is selected from the group consisting of municipal sludge and industrial sludge.

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16. (original) The method of claim 15 wherein the sludge is an activated sludge.
17. (original) The method of claim 14 wherein the mono-component enzyme preparation comprises endo-1,4- $\beta$ -glucanase.
18. (original) The method of claim 15 wherein the sludge is an autothermal thermophilic aerobic digestion sludge.
19. (original) The method of claim 14 further comprising adding one or more coagulants to the wastewater.
20. (original) The method of claim 18 further comprising adding one or more coagulants to the sludge.